

# **CEMTEC A-I BLACK P.U.**

## **LIQUID APPLIED WATERPROOFING MEMBRANE**

**CEMTEC A-I BLACK P.U.** is a one-component, liquid, cold applied waterproofing membrane base on polyurethane resin. It is primarily designed to give superior waterproofing and protection to virtually all substrate. It reacts with moisture in the atmosphere and forms an impervious, rubberized membrane that resists water, oil, fuel and other common air pollutants. It is an advanced state-of-art waterproofing system and offers tangible, cost-saving benefits over conventional sheet and bitumen based systems.

### **RECOMMENDED USES**

Recommended for use in water storage tanks, towers, pier, swimming pools and roofs.

Recommended for use in undertile areas such as bathrooms, kitchens and other wet sections.

### **ADVANTAGES**

- Easy to apply, by brush, roller or spray. Eliminates the use of adhesives, sealing tapes, blow torches, heating kettles commonly associated with sheet type or bitumen based system. No need for highly skilled laborers.
- Does not create mess and objectionable odor like bitumen based materials. Provides a seamless (no joint) waterproofing unlike sheet type membranes whose application is susceptible to water leak coming from the seams. No waste and cuttings.
- Resists deterioration from salts, acids, oil, alkali solutions, gasoline and bacteria.
- Adheres tenaciously to any substrate and remains flexible under extremes of temperature, will not crack or become brittle with age.
- Versatile, nonflammable and non-toxic.
- Due to efficiency in application, labor cost is reduced and results in shorter completion time of construction.
- Available in 20 ltr pail unlike bulky sheet type membranes.
- Maintenance free waterproofing system.

### **DIRECTIONS FOR USE**

**Surface Preparation** - Remove all dirt, laitance, oil grease, wax and other loose materials from the surface using a stiff nylon or steel bristled brush followed by compressed air. Voids, crack, and irregular surface with at least 3 mm depth shall be filled or levelled with mortar screed and allowed to cure at least forty eight (48) hours.

**Priming** - Prepare primer coat by mixing one (1) part Xylene to three (3) part **CEMTEC A-I BLACK P.U.** by volume. For horizontal or vertical surfaces, apply a thin coat of primer. Airless spraying equipments may also be used. Care should be taken that no excess liquid collect on the edges of the wall converging on the floor. If this occurs, the liquid must be evenly spread out by brush. Allow to cure prior to the next coat (usually from 10-14 hours). Best results can be obtained by limiting the thickness of the prime coat between 0.3-0.4 mm.

**First And Succeeding Coats** -After the prime coat has cured, apply a thin coat of **CEMTEC A-I BLACK P.U.** (without xylene) starting with the vertical surface. Ensure that the edges of the vertical surface are evenly coated with P.U. and extends to the horizontal surface by 100 mm. Disperse liquid that may collect on the edges. Coating shall be allowed to cure at least one (1) day prior to the succeeding coats. Thickness should be limited to 0.5 - 0.6mm per coat. Optimum performance can be obtained at a total membrane thickness of 1.0 mm including the prime coat.

**Caution** - DO NOT APPLY **CEMTEC A-I BLACK P.U.** ON WET OR UNPREPARED SURFACES. Smoking should be strictly prohibited during application.

In confined areas of application, breathing equipment should be made available for operatives.

### **COVERAGE**

20 ltr will cover approx. 16 m<sup>2</sup> at 1000 dry film micron thickness depending on surface profile.

## PHYSICAL PROPERTIES

PROPERTIES	RESULTS	TEST METHOD
Tensile Strength - 200% Modulus	200 p.s.i.	ASTM D 412
Tensile Strength at break	435 p.s.i.	ASTM D 412
Tensile set recovery %	95	ASTM D 412
Elongation%	440	ASTM D 412
Low temperature flexibility		
Cracking	None	ASTM C-836
Adhesion to mortar, n/m	3325	ASTM D 413 TypeA
Water vapor permeability, Metric perms	0.4	ASTM E-96 Method BW
Shore A hardness	45	ASTM D 2240
Tear resistance, KN/m	25.1	ASTM D-624 die C
Heat aging % weight loss	0.92	7 days at 82° C
In service temperature 20- hours @ 121°C	No cracking No shrinkage and 435% elongation	----
Chemical Resistance, % wt. change		ASTM D 471
Water	3.5	
10% NaCl	2.1	
5% NaOH	2.3	
5% H <sup>2</sup> SO <sup>4</sup>	3.3	
Brittleness temperature°C	-42	ASTM D-746

Note: Ultimate tensile strength can be increased seven (7) times if reinforced with fabric mesh.

## PACKAGING

20 ltr pail / 20kg pail

## LIMITATIONS

- Not Recommended to be exposed to direct sunlight
- Open only the required amount of material that can be used. The material will harden/ cure in the container if not used.
- If R.H. is less than 50% contact CMCI Technical Dept.
- Solvents in **CEMTEC A-I BLACK P.U.** are flammable. Keep away from heat, sparks, open flame or lighted cigarettes. Use explosion-proof application equipments.

### QUALITY STATEMENT

CMCI manufacture its products at their manufacturing facility in Saudi Arabia as per the Quality Procedures certified to conform with Quality Management System described in ISO 9000 series

CMCI provides a comprehensive technical support system for its full range of high performance construction products. CMCI also offers full technical field support to consultants, Architects, Contractors, applicators and End Users

The Technical Specification information and recommendation given are based on the current technical knowledge and the user or his representative is recommended to check the suitability of the product. CMCI reserves the right to amend the technical characteristic of the product as part of ongoing research and development. As the work execution is beyond the direct and continuous control of CMCI no guaranty and or responsibility is assumed on the performance of work completion executed with use of our products.